

IN THE SPECIFICATION

Please amend the paragraph beginning at page 2, line 16, as follows:

Some electronic apparatus capable of using both primary and secondary batteries are configured to use a DC adapter. The DC adapter converts a commercial alternating power into a DC power using an AC/DC converter and supplies the apparatus with the DC power. Some DC adapters of this type are configured to be housed in the battery housing portion for primary and secondary batteries. In order to realize this configuration, proposed is a DC adapter having substantially the same size as that of the assembled secondary battery whose size is the same as that obtained by arranging the two size AA batteries and having substantially a similar shape to the assembled secondary battery. Electrodes are formed on the DC adapter. The DC adapter is provided with electrodes. When being housed in the battery housing portion for the primary and secondary batteries, the electrodes come into contact with terminals formed in the battery housing portion with which the electrodes provided in the primary and secondary batteries come into contact. Therefore, when the DC adapter [[being]] is housed in the battery housing portion, the electrodes come into contact with terminals formed in the battery housing portion, and a DC power is supplied to an electronic apparatus through the terminals and electrodes.

Please amend the paragraph beginning at page 5, line 5, as follows:

To solve the above problems, according to the present invention, there is provided a DC adapter which is connected to an AC/DC converter and is inserted into a battery housing portion of an electronic apparatus so as to supply the electronic apparatus with a DC power, wherein a substantially cylindrical adapter main body has an insertion limiting portion which is guided by an insertion guide portion of the battery housing portion when the DC adapter is inserted into the battery housing portion with the proper polarity, and comes into contact with

the insertion end side wall of the battery housing portion when the DC adapter is inserted into the battery housing portion with the reversed polarity so as to limit the insertion of the DC adapter,~~, and the~~ The insertion limiting portion [[being]] is formed by projecting a part of the outer circumference of the cylindrical main body in a rectangular manner along the longitudinal direction of the main body~~, and having~~ It has two sides each of which extends from a part of the outer circumference of the DC adapter, ~~wherein~~ and the center angle of the circular arc obtained by connecting the proximal ends of the two sides on the outer circumference of the DC adapter is less than 90°.

Please amend the paragraph beginning at page 5, line 21, as follows:

According to the present invention, there is provided an electronic apparatus comprising a battery housing portion into which a DC adapter which is connected to a cylindrical primary battery, a cylindrical secondary battery, or AC/DC converter to supply the electronic apparatus with a DC power is inserted~~, wherein the~~ The battery housing portion includes an insertion guide portion which is formed by cutting, in a rectangular shape, a part of the circular inner circumferential wall thereof to meet the shape of an insertion limiting portion formed by projecting a part of the outer circumference of the DC adapter~~, [and]~~ The battery housing is engaged with the insertion limiting portion when the DC adapter is inserted with the proper polarity to guide the insertion of the DC adapter~~, [, the]~~ The center angle of the circular arc obtained by connecting the proximal ends of two sides constituting the insertion guide portion on the inner circumference of the battery housing portion is less than 90°~~, and when~~ When the DC adapter is inserted with the reversed polarity, the insertion limiting portion comes into contact with the insertion end side wall of the battery housing portion and the insertion of the DC adapter is limited.

Please amend the paragraph beginning at page 8, line 10, as follows:

FIG. 15A is a perspective view showing the interior of the battery housing portion, and FIG. 15[[A]]B is a partial enlarged perspective view;

Please amend the paragraph beginning at page 8, line 13, as follows:

FIG. 17 is a cross-sectional view showing the battery charger in a state where the battery unit is attached thereto; [[and]]

Please amend the paragraph beginning at page 8, line 15, as follows:

FIG. 18 is a side view showing the battery charger[[.]]; and

Please amend the paragraph beginning at page 9, line 1, as follows:

A digital still camera 1 to which the present invention is applied has a camera main body 11 as shown in FIGS. 1 to 3. The camera main body 11 has a lens portion 12 constituted by a lens barrel housing a plurality of lenses on one side of the front surface thereof and has a grip portion 13 which is gripped by a user on the other side of the front surface thereof. The grip portion 13 is so formed as to blow up from the front surface of the camera main body 11 so that the grip portion 13 can be stably gripped by a hand and fingers, as shown in FIGS. 2 and 3. The camera main body 11 also has a shutter button 14 on the grip portion 13 side of the upper surface.

Please amend the paragraph beginning at page 9, line 10, as follows:

Formed within the grip portion 13 is a battery housing portion 20 (shown in FIG. 9) which houses a primary battery such as a dry battery 4 (shown in FIG. 6) or a rechargeable battery such as a nickel-hydrogen secondary battery 5 (also shown in FIG. 6) as a simple

body, or houses a battery unit 2 (shown in FIG. 5) in which a plurality of batteries are arranged in an integrated manner. On the bottom surface on the side at which the grip portion 13 is formed, a battery cover 15 for the battery housing portion 20 is so formed as to be freely opened and closed, as shown in FIG. 3. The battery housing portion 20 can selectively house a primary and secondary battery and battery unit 2, as well as a DC adapter 3 (shown in FIG. 6) which converts an alternating current power source to a direct current power source to thereby supply a power circuit of the camera main body 11 with the direct current power source. Therefore, the camera main body 11 does not have a connector, a switching circuit, and a switch for a DC jack to which an external direct current power source is supplied, thereby reducing the size of the camera itself. The details of the battery housing portion 20 and battery unit 2 and DC adapter 3 to be inserted into the battery housing portion 20 will be described later.

Please amend the paragraph beginning at page 10, line 10, as follows:

As shown in FIG. 1, a display section 18 is formed on the rear surface of the camera main body 11 at the area behind the lens portion 12. The display section 18 has, for example, substantially a rectangular shape and is constituted by a display device such as an LCD (Liquid Crystal Display) or organic EL (Electroluminescence) display. A finder section 19 is formed on the upper side of camera main body 11 above the display section 18. An operation section 10 including a plurality of operation buttons is formed adjacent to the display section 18 on the rear surface of the camera main body 11. With the operation section 10, a user can not only perform an operation for allowing the display section 18 to display image data stored, for example, in an internal memory but also make detailed settings of the digital still camera 1, such as ON/OFF of a flash.

Please amend the paragraph beginning at page 13, line 7, as follows:

The engaging portion 25 formed on the one concave portion 2a of the battery unit 2 is engaged with [[a]] the lever switch 61 formed in the battery housing portion 20. This engagement enables the digital still camera 1 to identify the type of the battery unit 2. The engaging portion 25 is formed from the middle portion on the separate plate 24 in the longitudinal direction to the rear end portion in the insertion direction of the battery unit 2. The engaging portion 25 has a identification section 26 to identify the type of the battery unit 2 on the front side end surface 25a in the insertion direction of the battery unit 2 and a projection 27 which faces a supporting projection 28 (to be described later) formed on the battery cover 15 on the rear [[side]] end surface 25b in the insertion direction of the battery unit 2.

Please amend the paragraph beginning at page 13, line 17, as follows:

The identification seetion portion 26 is formed into, for example, a projected, flat, or concave shape depending on the charge-discharge characteristics such as service capacity, charging voltage, or charging current of the battery unit 2, as shown in FIGS. 8A to 8C. When the battery unit 2 is inserted into the battery housing portion 20, the identification section 26 is engaged with the lever switch 61 provided on the movement path of the engaging portion 25. Since the pressing force against the lever switch 61 differs depending on the above shapes of the identification section 26, the digital still camera 1 can identify the type of the inserted battery unit 2 by detecting the difference in the pressing force. Therefore, the digital still camera 1 can disallow a user's operation on the camera main body 11 when, for example, a nonconforming battery unit is inserted; and it can charge the battery unit 2 at an optimal battery charging speed when the inserted battery unit 2 is a quick-chargeable one.

Please amend the paragraph beginning at page 15, line 4, as follows:

In the case where the two simple dry batteries or two simple secondary batteries are housed in the battery housing portion 20, when the supporting projection 28 formed on the battery cover 15 is inserted between the dry batteries or secondary batteries that have been thus adjacently arranged, a clearance is provided to avoid the danger of a short-circuit and the like. The battery cover 15 also has a pair of cover electrodes 29 and 30, one on each side on both sides of the supporting projection 28. The cover electrodes 29 and 30 come into contact with the dry batteries or secondary batteries, or the positive terminal 22a and negative terminal 22b formed on the rear side end surface of the battery unit 2 in the insertion direction thereof.

Please amend the paragraph beginning at page 15, line 13, as follows:

When the battery unit 2 is inserted into the battery housing portion 20 with reversed polarity, the engaging portion 25 comes into contact with [[a]] the guide projection 53 formed in the battery housing portion 20. Thus, the wrong insertion of the battery unit 2 into the battery housing portion 20 can be prevented. The engaging portion 25 is so formed in the concave portion 2a of the battery unit 2 as not to exceed the outermost diameter of the battery body 22.

Please amend the paragraph beginning at page 16, line 9, as follows:

A description will next be given of the DC adapter 3 which is housed in the battery housing portion 20 and is connected to the home alternating current power source through an AC/DC ~~eeveter~~ converter to supply the digital still camera 1 with an external DC power source. The DC adapter 3 has, as shown in FIGS. 6, 10, and 11, an adapter main body 31, a cable 32 extending from the adapter main body 31, and a connector 33 provided at the distal

end of the cable 32. The connector 33 is connected to an AC/DC converter 35 provided with an AC power plug 34.

Please amend the paragraph beginning at page 16, line 16, as follows:

The adapter main body 31 includes first and second cylindrical portions 37 and 38 which have a shape corresponding to that of the respective housing portions of the battery housing portion 20 and are adjacently arranged in the direction perpendicular to the longitudinal direction of the adapter main body 31. First and second groove portions 39 and 40 are formed on [[both]] the two sides of the adapter main body 31 between the first and second cylindrical portions 37 and 38 along the longitudinal direction. The first cylindrical portion 37 has an insertion limiting portion 41 having a shape corresponding to an insertion guide portion 57 formed in a first housing portion 51 of the battery housing portion 20. The insertion limiting portion 41, which serves to prevent the DC adapter 3 from being inserted into the battery housing portion 20 with reversed polarity, is formed by projecting a part of the outer circumference of the first cylindrical portion 37 in a rectangular manner. The insertion limiting portion 41 includes adjacent first and second limiting sides 41a and 41b between which the vertex of the insertion limiting portion 41 is located. The first and second limiting sides 41a and 41b constituting the insertion limiting portion 41, which extend from the outer circumference of the first cylindrical portion 37, cross each other at right angles, as shown in FIG. 12A. The center angle  $\theta 1$  of the circular arc obtained by connecting the proximal ends of the first and second limiting sides 41a and 41b on the outer circumference of the first cylindrical portion 37 is less than  $90^\circ$ . That is, the first limiting side 41a extends in a slightly inclined manner to the outside of the first cylindrical portion 37 with respect to the tangential direction at the proximal end on the outer circumference of the first cylindrical portion 37; on the other hand, the second limiting side 41b extends in the tangential direction

at the proximal end on the outer circumference of the first cylindrical portion 37, ~~and, as As~~

a result, the first and second limiting sides 41a and 41b cross each other at right angles.

Assuming that the proximal ends of the first and second limiting sides 41a and 41b on the outer circumference of the first cylindrical portion 37 are connected to each other to form a circular arc, the center angle  $\theta 1$  of the circular arc is less than  $90^\circ$ . When being housed in the first housing portion 51 of the battery housing portion 20, the DC adapter 3 is guided by the insertion guide portion 57 formed in the first housing portion 51 and having a shape corresponding to that of the insertion limiting portion 41, so that the DC adapter 3 can be inserted into the battery housing portion 20 smoothly. When the DC adapter 3 is inserted into the battery housing portion 20 with the first and second cylindrical portion 37 and 38 reversed[[,]] (that is, with reversed polarity)[[,]] the insertion limiting portion 41 comes into contact with a contact portion 58 formed in the battery housing portion 20, thereby preventing the insertion. Alternatively, as shown in FIG. 12B, third and fourth limiting sides 41c and 41d are extended from different proximal ends on the outer circumference of the first cylindrical portion 37 in a slightly inclined manner to the outside of the first cylindrical portion 37 with respect to the tangential direction at the respective proximal ends, such that the third and fourth limiting sides 41c and 41d cross each other at right angles and the center angle  $\theta 2$  of the circular arc obtained by connecting the proximal ends of the third and fourth limiting sides 41c and 41d on the outer circumference of the first cylindrical portion 37 is less than  $90^\circ$ .

Please amend the paragraph beginning at page 19, line 18, as follows:

When the DC adapter 3 is housed in the battery housing portion 20, the guide projection 53 is engaged with the first groove portion 39 formed between the first and second cylindrical portion 37 and 38, thereby realizing smooth insertion and extraction operation.

The second groove portion 40 has an electrode terminal 45 to contact a third electrode 62 formed in an engaging projection 54 of the battery housing portion 20. [[The]] A second electrode terminal 45 is negative. ~~As described above, in In~~ the DC adapter 3, an electrode terminal corresponding to [[the]] a first electrode 51a formed in the first housing portion 51 of the battery housing portion 20 is not formed at the front end of the first cylindrical portion 37 in the insertion direction thereof; instead, the second electrode terminal 45 is formed in the second groove portion 40. As a result, the positive and negative terminals are placed far apart from each other, as compared to the electrode arrangement in the dry batteries, secondary batteries, or battery unit 2, preventing the danger of short-circuit and thereby ensuring safety of the digital still camera 1. Further, as described above, the third electrode 62 is formed in the battery housing portion 20 at the position corresponding to the second electrode terminal 45. Thus, when electrical continuity between the second electrode 52a and third electrode 62 in the battery housing portion 20 is established, the digital still camera 1 side can determine that a dedicated DC adapter 3 conforming to the digital still camera 1 is being used. Therefore, it is possible to allow the digital still camera 1 to execute a particular operation that is available only when the dedicated DC adapter 3 is being used.

Please amend the paragraph beginning at page 20, line 18, as follows:

The height of the second electrode terminal 45 is less than those of the first and second cylindrical portions 37 and 38. That is, the second electrode terminal 45 does not exceed[[,]] the outer circumferences of the first and second cylindrical portions 37 and 38 on the side that the second groove portion 40 faces. Therefore, it is possible to prevent the second electrode terminal 45 of the DC adapter 3 from damaging the components and the like in the battery housing portion 20, as well as prevent the danger of the damage of the electrode terminal 45, short-circuit, and the like.

Please amend the paragraph beginning at page 21, line 10, as follows:

When the DC adapter 3 having the above configuration is inserted into the battery housing portion 20, the second negative electrode terminal 45 formed in the second groove portion 40 contacts the third electrode 62 formed in the engaging projection 54 before the first positive electrode terminal 44 formed at the front end of the second cylindrical portion 38 in the insertion direction thereof contacts the second electrode 52a formed on the battery housing portion 20 side. Thus, the negative terminal contacts the corresponding electrode before the positive terminal does, so that a stable power supply can be ensured.

Please amend the paragraph beginning at page 21, line 18, as follows:

Further, in the DC adapter 3, the front end surface of the first cylindrical portion 37 in the insertion direction thereof is flattened and the longitudinal length of the first cylindrical portion 37 is smaller than that of the second cylindrical portion 38 having the projecting first electrode terminal 44 on the front end surface in the insertion section thereof, battery unit 2, dry battery 4, or secondary battery 5. This configuration reduces the load to the first cylindrical portion 37, the load being applied by a support spring 51b formed on the first electrode 51a of the battery housing portion 20 as shown in FIG. 13. Accordingly, the spring pressure needed when the battery cover 15 is closed [[after]] against the housing of the DC adapter 3 is reduced, allowing closing operation of the battery cover 15 to be easily performed to increase operational feeling.

Please amend the paragraph beginning at page 22, line 8, as follows:

A description will next be given of the battery housing portion 20 in which the primary battery, secondary battery, abovementioned battery unit 2, or DC adapter 3 which supplies the camera main body 11 with a drive power is housed. The battery housing portion

20 is, as shown in FIG. 6, formed on the bottom portion of the camera main body 11 and includes first and second housing portions 51 and 52 into which various power sources are inserted and which face outward. The battery housing portion 20 is closed by the battery cover 15 (not shown in FIG. 6). The first and second housing portions 51 and 52 are formed in a hollow cylinder having a size suitable for housing, for example, size AA dry battery, respectively and arranged in the direction perpendicular to the longitudinal direction. The battery housing portion 20 further includes the guide projection 53 and the engaging projection 54 which are integrally formed with the first and second housing portions 51 and 52 at the upper and lower portions between the first and second housing portion portions 51 and 52 and are extended in the longitudinal direction thereof. The guide projection 53 has a shape corresponding to the shape of the primary or secondary batteries whose cylindrical bodies are arranged in the direction perpendicular to the longitudinal direction or the shapes of the concave portion 2b formed between the cylindrical bodies of the battery unit 2 or first groove portion 39 formed between the cylindrical bodies of DC adapter 3 and thereby guides the insertion/extraction of the various power sources. The engaging projection 54 includes a lever switch (to be described later) and the third electrode 62.

Please amend the paragraph beginning at page 23, line 8, as follows:

As shown in FIG. 14, the first housing portion 51 has, at a part of the inner circumference thereof, the insertion guide portion 57 for guiding the insertion of the DC adapter and preventing the wrong insertion. The insertion guide portion 57 is formed by cutting, in a rectangular shape, a part of the inner circumferential wall of the first housing portion 51. The insertion guide portion 57 includes adjacent first and second guide sides 57a and 57b between which the vertex of the insertion guide portion 57 is located. The first and second guide sides 57a and 57b constituting the insertion guide portion 57, which extend

from the inner circumferential wall of the first housing portion 51, cross each other at right angles. The center angle  $\theta_3$  of the circular arc obtained by connecting the proximal ends of the first and second guide sides 57a and 57b on the inner circumferential wall of the first housing portion 51 is less than  $90^\circ$ . That is, the first guide side 57a extends in a slightly inclined manner to the outside of the first housing portion 51 with respect to the tangential direction at the proximal end on the inner circumferential wall of the first housing portion 51; on the other hand, the second guide side 57b extends in the tangential direction at the proximal end on the inner circumferential wall of the first housing portion 51,~~, and, as~~ As a result, the first and second guide sides 57a and 57b cross each other at right angles. Assuming that the proximal ends of the first and second guide sides 57a and 57b on the inner circumferential wall of the first housing portion 51 are connected to each other to form a circular arc, the center angle  $\theta_3$  of the circular arc is less than  $90^\circ$ . Accordingly, the cut angle of the one corner at which the insertion guide portion 57 is formed is less than  $90^\circ$ . Thus, as shown in FIG. 9, when the size AA dry battery or secondary battery is inserted into the battery housing portion 20, the inner circumferential wall can also support a part of the side wall of the above battery on the insertion guide portion 57 side, thereby preventing the above battery from rattling within a battery housing portion 20 in the cutting direction.

Please amend the paragraph beginning at page 25, line 20, as follows:

As described above, the longitudinal length of the first cylindrical portion 37 of the DC adapter 3 is smaller than that of the second cylindrical portion 38, battery unit 2, dry battery 4, or secondary battery 5. This configuration reduces, as shown in FIG. 13, the load to the first cylindrical portion 37, the load being applied by the support spring 51b formed on the first electrode 51a. Accordingly, the spring pressure needed when the battery cover 15 is

closed [[after]] against the housing of the DC adapter 3 is reduced, allowing closing operation of the battery cover 15 to be easily performed to increase operational feeling.

Please amend the paragraph beginning at page 28, line 1, as follows:

The lever switch 61 includes: an insertion portion 66 to be inserted into the engaging projection 54 and slid in the housing direction of the battery unit 2; an operation portion 67 which is formed integrally with the insertion portion 66 and presses the detection switch 64 in accordance with the slide amount of the insertion portion 66; and a press portion 68 which is projected from one end of the insertion portion 66 and pressed by the engaging portion 25 of the battery unit 2. The press portion 68 on the insertion portion 66 is projected from a one end portion 66a on the opening end side of the engaging projection 54 toward the battery housing portion 20 to face the moving area of the engaging portion 25 of the battery unit 2. Therefore, when the battery unit 2 is housed in the battery housing portion 20, the press portion 68 is pressed by the engaging portion 25, allowing the lever switch 61 to be slidably moved to the depth of the engaging projection 54. One end portion on the opposite side to the other end portion at which the press portion 68 is formed is biased by the biasing member 65 provided in the engaging projection 54, so that the insertion portion 66 is biased to the opening side of the battery housing portion 20 all the time. The operation portion 67, which is formed integrally with the insertion portion 66, is moved in accordance with the slide amount of the insertion portion 66. The operation portion 67 presses the detection switch 64 provided on the moving area to operate the detection switch 64.

Please amend the paragraph beginning at page 28, line 20, as follows:

The detection switch 64 includes a detection lever 64a which determines the type of the battery unit 2 based on the rotation amount, as shown in [[GIG.15B]] FIG. 15B. The

detection lever 64a is so provided as to face the movement area of the operation portion 67 of the lever switch 61.

Please amend the paragraph beginning at page 31, line 17, as follows:

The charger 70 can charge the battery unit 2 and a simple secondary battery 5. As shown in FIG. 16, the charger 70 includes: a main body 71 in the form of a half circle in its cross section; two battery housing portions 72 and 72 each of which has end surfaces 72a and 72b at either end formed on the upper surface of the main body 71; a partition wall 73 which partitions the battery housing portions 72 and 72 from each other; side walls 74 and 74 formed on the outside sides of the respective battery housing portions 72 and 72 in the longitudinal direction of the main body 71; and electrode support portions 75 which support respective electrode terminals provided in the battery unit 2 or secondary battery 5.

Please amend the paragraph beginning at page 32, line 5, as follows:

he battery housing portion 72 has a size suitable for housing the nickel-hydrogen secondary battery 21 of the battery unit 2 having the same size as that of the size AA dry battery, or a simple secondary battery 5 and has a cross-section having substantially a circular arc. [[Two]] The two battery housing portions 72 and 72 are adjacently arranged in the direction perpendicular to the longitudinal direction of the charger 70 and are partitioned from each other by the partition wall 73. The side wall 74 is formed on the outside side of each of the battery housing portions 72. As shown in FIG. 17, the partition wall 73 and side wall 74 are formed integrally with the battery housing portion 72 and have circular arc shapes. The heights of the partition wall 73 and the side wall 74 are less than the height of the center axis of the nickel-hydrogen secondary battery 21 of the battery unit 2 or secondary battery 5 that is housed in the battery housing portions 72. The height of the side wall 74 is

less than that of the partition wall 73. A slope portion 76 which declines to a side surface 71a of the main body 71 is formed continuously from the side wall 74. With the above configuration, a user can easily place his or her finger 82 on the lower side surface of the battery unit 2 or secondary battery 5 that has been housed in the battery housing portions 72 through the side walls 74 and thereby the battery can be removed smoothly.

Please amend the paragraph beginning at page 33, line 2, as follows:

Further, as described above, the battery housing portion 72 includes the electrode support portions 75 formed on both end surfaces 72a and 72b in the longitudinal direction of the charger 70. In the electrode support portions 75, first and second conductive plates 79 and 80 made of flexible metal plates are exposed from first and second cut portions 77 and 78 obtained by cutting the both edge surfaces 72a and 72b of the battery housing portion 72 in a rectangular shape. The first conductive plate 79 supports the positive terminal of the battery unit 2 or secondary battery 5. A support wall 81 which supports the projected positive terminal is raised around the first cut portion 77 from which the first conductive plate 79 is exposed to the outside. The second conductive plate 80 supports the negative terminal of the battery unit 2 or secondary battery 5. The second conductive plate 80 is sloped from the upper end portion of the second cut portion 78 to the lower side and is bent downward in the intermediate portion of the plate. That is, the second conductive plate 80 is so formed as to be projected to the battery housing portion 72 side. As described above, in the battery unit 2, the two nickel-hydrogen secondary batteries 21 are arranged with the positive terminal 22a and negative terminals [[22]] 22b reversed between the two. Correspondingly, the first cut portion 77 and first conductive plate 79 and the second cut portion 78 and second conductive plate 80 are reversed respectively between adjacently arranged two battery housing portions 72. When the battery unit 2 or secondary battery 5 is housed in the battery housing portions

72, the projected positive terminal is supported by the support wall 81 formed in the first cut portion 77 and the flat negative terminal is supported by the second conductive plate 80 projected toward the battery housing portion 72 side. As a result, the battery unit 2 or secondary battery 5 can be retained in the battery housing portions 72.

Please amend the paragraph beginning at page 34, line 2, as follows:

As shown in FIGS. 16 and 17, when the positive terminal 22a of the battery unit 2 is allowed to face the first cut portion 77 and the first conductive plate 79, and the negative terminal 22b is allowed to face the second cut portion 78 and the second conductive plate 80, the concave portion 2b on which the engaging portion 25 is not formed faces the partition wall 73. That is, when the battery unit 2 is housed in the battery housing portion 72 with the proper polarity as described above, the concave portion 2b is engaged with the partition wall 73 of the charger 70. On the other hand, when the battery unit 2 is housed in the battery housing portion 72 with the reversed polarity, the concave portion 2a and partition wall 73 face each other, so that the engaging portion 25 of the concave portion 2a comes into contact with the partition wall 73 to limit the housing of the battery unit 2. Thus, in this manner, the wrong insertion of the battery unit 2 can be prevented.

Please amend the paragraph beginning at page 35, line 12, as follows:

The charger 70 includes a detection means 83 for detecting whether both of the two nickel-hydrogen secondary batteries 21 have been attached to the battery housing portions 72. When the battery unit 2 has been attached to the battery housing portions 72, the charger 70 performs a charging operation suitable for the battery unit 2. That is, the charger 70 is configured to be able to perform a charging operation for the simple secondary battery 5 and the battery unit 2 constituted by combining the secondary batteries. The secondary battery 5

differs in its charging characteristics such as charging voltage or charging capacity, or quality depending on the manufacturer of the battery; whereas the charging characteristics of many battery units 2 are previously defined and therefore the qualities thereof are stable. When the battery unit 2 is attached to the charger 70, therefore, the charger 70 selects an optimal charging mode from the known charging characteristics to perform, for example, a quick charging. This provides more convenience to the users. For the above reason, the charger 70 which charges the battery unit 2 includes the detection means 83 which determines whether the battery unit 2 or simple secondary battery 5 has been attached thereto and detects whether both of the two nickel-hydrogen secondary batteries 21 of the battery unit 2 have been attached to the battery housing portions 72. With the above configuration, when both of the two nickel-hydrogen secondary batteries 21 of the battery unit 2 have been attached to the battery housing portions 72, the charger 70 performs an optimal charging operation, such as a quick charging, for the battery unit 2.

Please amend the paragraph beginning at page 36, line 13, as follows:

The detection means 83 determines whether the simple secondary battery 5 or the battery unit 2 has been attached to the battery housing portions 72 as well as detects, in the case where the battery unit 2 has been attached, whether both of the two nickel-hydrogen secondary batteries 21 of the battery unit 2 have been attached to the battery housing portions 72. The charger 70 starts performing a charging operation when detecting one secondary battery 5 attached to one of the battery housing portions 72 in the case where the simple secondary battery has been attached or when detecting two nickel-hydrogen secondary batteries 21 of the battery unit 2 attached to all the battery housing portions 72.

Please amend the paragraph beginning at page 37, line 1, as follows:

The above detection means 83 is constituted as follows: for example, a projection which is projected to the concave portion 2b side is formed on the separator 23 of the battery unit 2, an insertion hole into which the projection is inserted is formed in the partition wall 73 of the charger 70, and a detection switch is provided in the insertion hole. According to the detection means 83, when both of the two nickel-hydrogen secondary batteries 21 of the battery unit 2 are housed in the battery housing portions 72 with the proper polarity, the concave portion 2b and the partition wall 73 are engaged with each other and, at the same time, the projection formed on the separator 23 is inserted into the insertion hole on the partition wall 73 to depress the detection switch. By this, it is possible to detect that the battery unit 2 dedicated for the digital still camera 1 has been attached to the charger 70 as well as that both of the two nickel-hydrogen secondary batteries 21 have been attached to the charger 70. On the other hand, when the one or two simple secondary batteries 5 have been attached to the charger 70, the detection switch is not depressed since there is no projection to be inserted into the insertion hole on the partition wall 73. Accordingly, the charger 70 can determine that the simple secondary battery 5 has been attached thereto.

Please amend the paragraph beginning at page 45, line 1, as follows: